Nuytsia The journal of the Western Australian Herbarium
27: 75–76 Published online 13 May 2016

SHORT COMMUNICATION

Status of *Senecio diaschides* (Asteraceae) in Western Australia

Senecio diaschides D.G.Drury was described in a revision of the disciform (erechthitoid) members of the genus in New Zealand by Drury (1974). This group now comprises *c.* 40 species in Australia, of which 36 are endemic and four are shared with New Zealand (Thompson 2004). Belcher (1983) described *S. cahillii* Belcher from Australian material, subsequently realising after comparing more material that this was synonymous with Drury's earlier *S. diaschides* (Belcher 1986). *Senecio diaschides* occurs in Western Australia, Victoria, New South Wales, ACT and Queensland.

Drury (1974) regarded that *S. diaschides* was an introduced species in Australia, while Belcher (1983) regarded his *S. cahillii* as native. *Senecio diaschides* is currently listed as naturalised in Western Australia in most checklists and floras (e.g. Paczkowska & Chapman 2000; Wheeler *et al.* 2002; Thompson 2004, 2015). It was listed as naturalised in *FloraBase* until August 2015 when altered to native as an outcome of this study (Western Australian Herbarium 1998–). The species is listed as native in other states (Council of Heads of Australasian Herbaria 2006–). Reasons for the naturalised status of *S. diaschides* in Western Australia are likely to be a combination of the late date of first collections, absence of records in early literature, its ecology as a pioneer species in disturbed areas and the disjunction of the Western Australian records from those in eastern Australia. Each of these is briefly discussed below.

Late date of collection. The first collections of *S. diaschides* in Western Australia were made in 1963 (*C.V. Cahill* 22, *Paul G. Wilson* 6269, *Paul G. Wilson* 6365, all PERTH). However, few specimens of any species of *Senecio* L. were collected in Western Australia before 1925 (25 across all Australian herbaria; AVH 2015), and collections of the relatively inconspicuous disciform group are rare before 1960. Interestingly, there is a collection of a putative hybrid between *S. diaschides* and *S. muliticaulis* A.Rich. from Manjimup by Max Koch in 1920 (*M. Koch* 2510, PERTH). Given this poor collecting record, there is no evidence to suggest that the species is a later addition to the flora than other members of the group that are considered native.

Literature records. Because it was only recognised as distinct and described late, *S. diaschides* is not recorded in early checklists of the Western Australian flora. The first record, under the synonym *S. cahillii*, in Green (1981, 1985), is as a native species. Marchant *et al.* (1987) listed the species as native. There appear to be no references explaining why the status of the species changed to naturalised.

Ecology. *Senecio diaschides* is a component of wetlands and damplands in the Swan Coastal Plain bioregion and of wetlands and open granite sites in the Jarrah Forest bioregion (Department of the Environment 2013). It is often most common after fires, behaving as a normal post-fire component of such sites. The species is also very commonly encountered in sites that have been logged, especially after a post-logging regeneration burn. It is likely to have benefited from opening up of the forest as a result of timber harvesting, but does not appear to invade or persist in areas beyond that expected of a post-fire annual. Several other native disciform *Senecio* species (e.g. *S. glomeratus* Poir., *S. hispidulus* A.Rich., *S. minimus* Poir.) behave in a similar manner.

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ISSN 2200-2790 (Online)
ISSN 0085-4417 (Print)

Distribution. *Senecio diaschides* is one of several species in the group (e.g. *S. hispidulus*, *S. minimus*) that are disjunctly distributed in south-eastern and south-western Australia. The only slightly unusual aspect of its distribution is that the species is not currently known from South Australia. Disjunct distribution patterns are relatively common in wind-dispersed annuals such as *S. diaschides*.

On balance there seems no reason to assume that *Senecio diaschides* is not native in Western Australia. There is no reason to believe that it was introduced for any commercial purposes, and while it may have appeared as a fodder contaminant, there is no evidence that this is the case. Because it was originally described in New Zealand, there may have been an assumption that it was an introduced species from there to Australia. Some New Zealand plants are now considered as naturally introduced from Australia (New Zealand Plant Conservation Network 2015) via wind, and *S. diaschides* could potentially be in this category.

We recommend, in the absence of clear evidence to the contrary, that *S. diaschides* be listed as native in Western Australia.

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